supplementation in beef positively modify muscle fatty acid composition; in particular, extruded linseed and fish oil are able to increase *n-3* PUFA and CLA content. The aim of the present study was to determine the effects of a lipid supplement (Vitality®, Zoofarma, Villafranca di Verona, Italy) on the nutritional profile and fatty acids composition of *longissimus dorsi* (LD) muscle in the finishing diet of beef. One hundred Charolaise beef were divided in two experimental groups: the control group (CON) received a basal diet composed (on DM basis) by 3.7 kg of corn silage, 1.3 kg of straw and 4.3 kg of concentrate (corn, soybean meal, wheat bran, beet pulp, distiller grain, protected fatty acid and mineral and vitamin premix). In the second group (TR) the protected fatty acid was replaced by 350 g/kg DM per animal/day of the lipid supplement (Vitality®). The lipid supplement contains extruded linseed, protected linseed oil and protected fish oil. After 6 months, beef were slaughtered (19 month of age) and LD muscle were collected from 20 animals per treatment. The samples were stored under vacuum and frozen at -20 °C pending analyses. Dietary treatment did not affect ($p>.05$) colour parameters and nutritional label. Inclusion of the lipid supplement decreased ($p<.001$) cholesterol (54.62 ± 0.7 mg/100 g muscle in CON *vs* 40.23 ± 1.7 mg/100 g muscle in TR) and SFA content in LD muscle. The n-3 PUFA (3.13 ± 0.1% of total FA in TR *vs* 1.06 ± 0.07% of total FA in CON) and CLA content (1.32 ± 0.02% of total FA in TR *vs* 0.43 ± 0.04% of total FA in CON) were significantly higher ($p<.001$) in treated group than in control group. The present data show that the inclusion of this lipid supplement in Charolaise bulls diets improve the fatty acid profile of beef and decrease cholesterol content. This feeding strategy is suggested to enhance the nutritional value of beef meat, improving the n-3 PUFA supply and consequently the consumer's health. However, assessments on meat oxidative stability and sensory characteristics should be evaluated.

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P104

Zingiber officinale reduced lipid oxidation and increased antioxidant capacity in cooked pork burgers

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Ready-to-eat products represent an important percentage of food production for their high usage and acceptance by consumers. Burgers are one of the most used meat product for their ease of consumption. Ginger (*Zingiber officinale* Roscoe) is one of the most common spice used worldwide, as a condiment for food and beverage. Ginger flavour is a mix of spicy, peppery and sweet with a strong pungent characteristic. Ginger powder contains several antioxidant molecules as gingerol, paradol, shogaols, zingerone, zerumbone, terpenoids as well flavonoids and phenols. The objective of this research was to evaluate the influence of ginger powder in pork burger (100 g, six burgers per formulation). Three formulations were prepared: one formulation was used as control (only meat) and two formulations were supplemented with ginger powder at 1 or 2%. Lipid oxidation and antioxidant capacity were determined in cooked burgers (baked in preheated oven at 163 °C to an internal temperature about 71 °C). Burgers were analysed for lipid oxidation (TBARS - thiobarbituric acid reactive substances) and antioxidant capacity as ABTS (2,2-azinobis-(3 ethylbenzothiazoline-6-sulfonic acid)), DPPH (1,1-diphenyl-2-pircydrazyl), and FRAP (ferric reducing ability).
In order to quantify antioxidant capacity (ABTS, DPPH and FRAP) cooked meat were treated with ethanol. Control burgers showed to be more sensitive to lipid oxidation with higher value of TBARS than the other two formulations added with ginger (0.06, 0.02 and 0.02 mg equivalent of malondialdehyde per kg of sample respectively for control, 1% and 2% ginger burgers; $p<.05$). Both percentages of ginger powder showed to enhance ABTS, DPPH and FRAP values from control burgers ($p<.05$ for ABTS and DPPH, $p<.001$ for FRAP). Furthermore, in the FRAP evaluation burgers with 2% of ginger showed to gain more antioxidant activity than burgers with 1% of spice.
Burgers added with both percentages of ginger showed to be less sensitive to lipid oxidation and gain highest antioxidant capacity.

P105

Performance and meat quality in light lambs fed with organic or conventional commercial concentrates

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